Amendments to the Specification

Please replace the paragraph on page 6, lines 10-13, of the as-filed International Application with the paragraph written below.

-- According to a first aspect of the invention, there is provided an engineered fibre reinforced cement product including a first major surface to which a carbonation reducing sealer is applied and a second generally opposing major surface to which a carbonation reducing sealer is applied, so as to reduce propensity for differential carbonation in the product, wherein the sealer applied to each of the major surfaces is at least 15 microns in overall thickness. --

Please replace the paragraph on page 8, lines 2-5, of the as-filed International Application with the paragraph written below.

-- The sealer applied to each of the major surfaces is preferably ~~at least~~ between 15 microns~~,~~ to around 80 microns, and ~~most~~ preferably between 15 microns ~~and~~ to around ~~80 microns to around~~ 50 microns in overall thickness. The sealer may be applied in a single application, or alternatively in multiple coats or stages. The sealer may also be cured in multiple stages. --

Please replace the paragraph on page 8, lines 17-20, of the as-filed International Application with the paragraph written below.

-- The formulation has a cement to silica ratio that is preferably between 0.2 to ~~and~~ around 1.5, more preferably between 0.3 to ~~and~~ around 0.9, more preferably between 0.3 to ~~and~~ around 0.5, more preferably still between 0.36 to ~~and~~ around 0.43, and most preferably around 0.39 on a dry weight basis. --

Please replace the paragraph on page 9, lines 5-8, of the as-filed International Application with the paragraph written below.

-- The product has a porosity that is preferably between 30% to ~~and~~ around 60%, and more preferably between 35% to ~~and~~ around 45%. The product has a relative density that is preferably between 0.5 to ~~and~~ around 2.0, more preferably between 0.8 to ~~and~~ around 1.9, and more preferably still between 1.2 to ~~and~~ 1.6. --

Please replace the paragraph beginning on page 9, line 18, of the as-filed International Application with the paragraph written below.

-- According to a second aspect, the invention provides a method of manufacturing a durable fibre reinforced cement product, said method comprising steps of:

mixing a wet fibre reinforced cement formulation;

forming from said formulation a green product defining first and second generally opposing major surfaces;

curing the green product to form a cured product; and

applying a carbonation reducing sealer to said first and second major surfaces, so as to reduce propensity for differential carbonation in the product, wherein the carbonation reducing sealer applied to each of the major surfaces is at least 15 microns in overall thickness. --

Please replace the paragraph on page 10, lines 13-17, of the as-filed International Application with the paragraph written below.

-- Preferably, the method includes the further step of compressing the green product prior to curing in a controlled manner such that the cured product exhibits a reduced carbonation gradient through its cross-sectional profile. The compression step includes application of pressure to the green product to achieve a porosity that is preferably between 30% to ~~and~~ around 60%, and more preferably between 35% to ~~and~~ around 45%. --

Please replace the paragraph on page 11, lines 8-11, of the as-filed International Application with the paragraph written below.

-- According to a third aspect, the invention provides an engineered fibre reinforced cement product including a first major surface with a reduced propensity to differential carbonation, wherein the product has a cement to silica ratio of between 0.29 to ~~and~~ around 0.51 and a porosity of between 25% to ~~and~~ around 45%. --

Please replace the paragraph beginning on page 13, line 17, of the as-filed International Application with the paragraph written below.

-- The preferred green sheet manufacturing process referenced in the flow chart 1 is set to produce a plurality of green sheets of a particular size which are then stacked one upon another and then optionally conveyed to a pressing station. At the pressing station, the press is programmed to take into account the sheet size and the stack height and the products are pressed to achieve a porosity of between 30% to ~~and~~ around 60%, and more preferably between 35% to ~~and~~ around 45%. This pressure is maintained for a predetermined time period as determined by trial experiment to achieve the desired outcomes in the final product. After pressing, the compressed green products are cured. The curing can be carried out in an autoclave in the conventional manner as set out in step 3, or using any number of other conventional techniques including air curing. --

Please replace the paragraph on page 15, lines 12-18, of the as-filed International Application with the paragraph written below.

-- If the sealer is a UV curable sealer, the sealer may be cured using UV lamps that provide UV radiation of wavelength from 250 to 400 nm at an intensity of between 200 to ~~and~~ 600 watts per inch, and more preferably between 300 to ~~and~~ 600 watts per inch. --

Please replace the paragraph beginning on page 15, line 19, of the as-filed International Application with the paragraph written below.

-- The carbonation reducing sealers suitable for this invention are specifically selected to reduce transport of both carbon dioxide gas and water. These sealers may be formulated as solvent based, water based, powder coating or the like. They may be considered to be 100% solids or reduced with a suitable solvent or water to achieve a viscosity suitable for the chosen application method. Where the carbonation reducing sealer is a radiation curable sealer, the sealer may be applied and cured using the techniques described in US patent 3935364, WO0220677A1 and US 6136383, each of which is incorporated herein in their entirety as references. Roll coating, curtain coating, spray coating, powder coating and the like are all suitable techniques for applying the sealer. In addition, the sealer may be applied at an elevated

temperature, for example between 30° C to ~~and~~ 150 ° C, in order to enhance curing and adhesion of the sealer. Alternatively, the substrate itself may be heated to between 30°C to ~~and~~ 150°C achieve the same effect. --

Please replace the paragraph on page 16, lines 15-23, of the as-filed International Application with the paragraph written below.

-- Carbonation reducing sealers which are aqueous dispersions have a solids content generally in the range from 20 to around 80% by weight, and more preferably from 30 to around 60% by weight, based on the total weight of the conventional coating. Of this, preferably at least 30% by weight, more preferably at least 50% by weight, and most preferably from 50 to around 90% by weight, is made up by the polymeric binder. Preferably, not more than 70% by weight, and more preferably from 10 to around 50% by weight, is made up by pigments and/or fillers. In the case of a clear sealer, the pigment and/or filler content will typically be less than around 10%. In the case of a keycoat or a combination keycoat/sealer, the filler content will be between 10% to ~~and~~ around 70%, and more preferably between 10% to ~~and~~ around 50%. --

Please replace the paragraph on page 20, lines 7-11, of the as-filed International Application with the paragraph written below.

-- The product is pressed in the green state using a stack press to form a product with a porosity between 30 to ~~and~~ 40% and a target density of about 1.55 g/cc. The product was then precured for around 80 hours at around 60°C, followed by autoclave curing at between 120°C to ~~and~~ 200°C, for around 24 hours. The product was then sealed in the manner previously described, and tested. --

Please replace the paragraph on page 20, lines 13-18, of the as-filed International Application with the paragraph written below.

-- Accelerated testing of conventional high density coated FC composite ~~article~~ articles and ~~a~~ composite FRC ~~article~~ articles formulated and coated as outlined in this example shows the significant performance benefits of the present invention. Under accelerated heat/ rain/ carbonation cycling, conventional products show a tendency to deform due to the effects of

differential carbonation. These effects are generally dampened but not eliminated by most traditional surface coating treatments that may be applied. --

Please replace the paragraph beginning on page 20, line 19, of the as-filed International Application with the paragraph written below.

-- The FRC composite of this invention shows a surprising and unexpected improvement in performance. The table below shows deflection results after an accelerated test involving fixing ~~a sample~~ samples of the composite FC product at predetermined points to a support frame, preconditioning the composite system in a carbon dioxide rich atmosphere for 8 7 hours followed by a predetermined number of cycles of heating to 70C on one surface for 1 hour then surface wetting at ambient temperatures for 1 hour. --

Please remove the paragraph and table on page 21, from lines 5-14, of the as-filed International Application as shown below.

~~-- Samples are instrumented to record permanent deflection away from their initial fixing position. Deflections are seen as bowing or warping of a product away from a support frame to which the sample is fixed. Nil or minimum deflection indicates a sample that has performed satisfactorily. Deflections of 50% or more of the composite product's thickness generally indicate that the article may not be stable in severe environment applications.~~

~~Deflection Vs Time in Accelerated Weathering Test~~

~~Time (mins)~~	~~Conventional High Denisty 9mm thick Coated FRC deflection (mm)~~	~~Present Inention 9 mm thick. Deflection (mm)~~
~~0~~	~~0~~	~~0~~
~~20~~	~~.5~~	~~0.4~~
~~40~~	~~1.0~~	~~0.8~~
~~60~~	~~1.8~~	~~1.2~~
~~100~~	~~3.5~~	~~2~~
~~200~~	~~3.8~~	~~2~~
~~400~~	~~6.5~~	~~1.75~~
~~600~~	~~9~~	~~1.6~~
~~800~~	~~9~~	~~1.55~~
~~1000~~	~~11~~	~~1.5~~
~~1200~~	~~11~~	~~1.45~~
~~1400~~	~~10.5~~	~~1.4~~

Please replace the paragraph on page 21, lines 15-17, of the as-filed International Application with the paragraph written below.

-- The table ~~below~~ also shows the % carbonation of the hydrated cement phases present in the front face, the centre and the rear or mounting face of a fibre cement composite construction panel made according to the example~~, compared to an unsealed standard FRC formulation~~. --

Please add the paragraph below after lines 15-17, page 21, of the as-filed International Application as written.

-- By way of comparison, a table showing typical values of % carbonation and average deflection for an unsealed standard FRC formulation is also provided. --

Please correct the Title of the TABLE beginning on line 1, page 22, of the as-filed International Application with the Title written below.

-- Exotec FRC ~~Panel~~ Panels Sealed on Front Face --

Please correct the Title of the TABLE beginning on line 5, page 22, of the as-filed International Application with the Title written below.

-- Conventional FRC ~~Panel~~ Panels Sealed on Front Face --

Please replace the paragraph on page 22, lines 9-11, of the as-filed International Application with the paragraph written below.

-- Clearly, the test ~~sample~~ samples manufactured and sealed in accordance with the present invention demonstrate superior performance in terms of deformation and carbonation ~~under the test conditions~~, than the corresponding ~~sample~~ samples according to the prior art. --